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EXAMINER	
MATTIS, JASON E	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/681,259	**Applicant(s)** SINDHU, PRADEEP	
	Examiner Jason E. Mattis	**Art Unit** 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-48 is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 1-48 is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 6, 9-18, 20, 23-32, 34, 37-44, and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Rajagopal et al. (U.S. Publication US 2003/0076840).

With respect to claim 1, Rajagopal et al. discloses elements for transferring data **(See page 2 paragraphs 21-22 and Figure 1 of Rajagopal et al. for reference to a system including network machines 140 and traffic management nodes (TMN) 110, which are elements for transferring data).** Rajagopal et al. also discloses an interface configured to transmit a communication to a network and receive a response to the communication **(See page 5 paragraphs 73-74 of Rajagopal et al. for reference to a TMN 110 transmitting an echo request through the network 100 and receiving an echo reply message, which is a response to the echo request).** Rajagopal et al. further discloses an analyzer configured to perform an admission analysis based on the response **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing communication latency of a path based on the echo reply message and determining whether to admit a communication transfer on the path based on the latency analysis)**. Rajagopal et al. also discloses a data transfer element configured to initiate data transfer based on the admission analysis **(See page 6 paragraph 92 and Figure 5E of Rajagopal et al. for reference to initiating data transfer on a path selected based on the latency analysis)**.

With respect to claim 15, Rajagopal et al. discloses a method of transferring data **(See page 2 paragraphs 21-22 and Figure 1 of Rajagopal et al. for reference to a system and method including network machines 140 and traffic management nodes (TMN) 110 for transferring data)**. Rajagopal et al. also discloses transmitting a communication to a network and receiving a response to the communication **(See page 5 paragraphs 73-74 of Rajagopal et al. for reference to a TMN 110 transmitting an echo request through the network 100 and receiving an echo reply message, which is a response to the echo request)**. Rajagopal et al. further discloses performing admission analysis based on the response **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing communication latency of a path based on the echo reply message and determining whether to admit a communication transfer on the path based on the latency analysis)**. Rajagopal et al. also discloses initiating data transfer based on the admission analysis **(See page 6 paragraph 92 and Figure 5E of**

Rajagopal et al. for reference to initiating data transfer on a path selected based on the latency analysis).

With respect to claim 29, Rajagopal et al. discloses a system comprising and admission control element for transferring data **(See page 2 paragraphs 21-22 and Figure 1 of Rajagopal et al. for reference to a system and method including network machines 140 and traffic management nodes (TMN) 110, which are admission control elements, for transferring data)**. Rajagopal et al. also discloses an transmitting a communication in a network, receiving the communication at a receiver, and sending a response **(See page 5 paragraphs 73-74 of Rajagopal et al. for reference to a TMN 110 transmitting an echo request through the network 100 to another TMN 110 that receives the echo request and sends an echo reply message, which is a response to the echo request)**. Rajagopal et al. further discloses an analyzer at the admission control element configured to perform an admission analysis based on the response **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing communication latency of a path based on the echo reply message and determining whether to admit a communication transfer on the path based on the latency analysis)**. Rajagopal et al. also discloses a data transfer element configured to initiate data transfer based on the admission analysis **(See page 6 paragraph 92 and Figure 5E of Rajagopal et al. for reference to initiating data transfer on a path selected based on the latency analysis)**.

With respect to claim 43, Rajagopal et al. discloses a method of data transfer **(See page 2 paragraphs 21-22 and Figure 1 of Rajagopal et al. for reference to a system and method including network machines 140 and traffic management nodes (TMN) 110 for transferring data).** Rajagopal et al. also discloses sending packets on a network path and receiving acknowledgments in response to the packets **(See page 5 paragraphs 73-74 of Rajagopal et al. for reference to a TMN 110 transmitting an echo request through the network 100 and receiving an echo reply message, which is an acknowledgement for the echo request).** Rajagopal et al. further discloses analyzing the acknowledgement and determining whether to initiate a data transfer on the network path based on the analysis **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing communication latency of a path based on the echo reply message and determining whether to admit a communication transfer on the path based on the latency analysis).**

With respect to claim 46, Rajagopal et al. discloses a method of data transfer **(See page 2 paragraphs 21-22 and Figure 1 of Rajagopal et al. for reference to a system and method including network machines 140 and traffic management nodes (TMN) 110 for transferring data).** Rajagopal et al. also discloses sending packets on multiple paths and receiving acknowledgments for the packets **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to a TMN 110 transmitting an echo request through the network 100 and receiving an echo reply message, which is an acknowledgement for the echo**

request, and for reference to sending the echo requests and receiving echo reply messages on multiple paths). Rajagopal et al. further discloses determining a network resource state based on the acknowledgments and initiating a data transfer or not based on the state of the network resource **(See page 5 paragraphs 73-74, page 6 paragraphs 86-92, and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing communication latency, which is a network resources, of the paths based on the echo reply messages and determining whether to admit a communication transfer on the paths based on the latency analysis).**

With respect to claims 2, 16, and 30, Rajagopal et al. discloses that the communication comprises a packet **(See page 5 paragraph 73 for reference to the echo request being an IP ping, which is an IP packet).**

With respect to claims 3, 17, and 31, Rajagopal et al. discloses that the response comprises an acknowledgment to the communication **(See page 5 paragraph 73 for reference to the response being an echo reply messages, which is an acknowledgment to the echo request).**

With respect to claims 4, 18, and 32, Rajagopal et al. discloses a timer configured to track time after the communication is sent **(See page 5 paragraphs 73-74 for reference to tracking time since the echo request was sent).**

With respect to claims 6, 20, and 34, Rajagopal et al. discloses a manager configured to analyze elapsed times for multiple communications **(See page 6 paragraph 91 and Figure 5E of Rajagopal et al. for reference to the TMN 110 analyzing the latency times of echo requests sent on multiple paths).**

With respect to claims 9, 23, and 37, Rajagopal et al. discloses using communication type information in the admission analysis **(See page 6 paragraphs 86-92 of Rajagopal et al. for reference to using communications service specifications, which comprise communication type information, to determine what an acceptable latency when analyzing the path latencies).**

With respect to claims 10, 24, and 38, Rajagopal et al. discloses analyzing elapsed times based on communications on multiple paths **(See page 6 paragraphs 86-92 and Figure 5E of Rajagopal et al. for reference to analyzing latency on multiple paths).**

With respect to claims 11, 25, and 39, Rajagopal et al. discloses that the paths are label switched paths **(See page 2 paragraph 27 or Rajagopal et al. for reference to the system using MPLS meaning the paths are label switched paths).**

With respect to claims 12, 26, and 40, Rajagopal et al. discloses the analyzer selecting one of the paths based on the admission analysis of elapsed times **(See page 6 paragraph 92 and Figure 5E of Rajagopal et al. for reference to selecting a path based on the latency measurements).**

With respect to claims 13, 27, and 41, Rajagopal et al. discloses that the elements transferring data are located in a client and an admission control facility **(See page 2 paragraphs 21-23 and Figure 1 of Rajagopal et al. for reference to the data transfer elements including network machines 140, which are clients, and traffic management nodes 110, which are admission control facilities).**

With respect to claims 14, 28, and 42, Rajagopal et al. discloses performing admission analysis prior to receiving a request to initiate data transfer **(See page 4 paragraphs 51-52 and Figure 5A for reference to continuously updating monitored path information for admission analysis prior to receiving a request to initiate data transfer).**

With respect to claim 44, Rajagopal et al. discloses establishing a label switched path as the network path **(See page 2 paragraph 27 or Rajagopal et al. for reference to the system using MPLS meaning the paths established are label switched paths)**.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5, 19, 33, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajagopal et al. in view of Kaffine et al. (U.S. Pat. 6654914 B1).

With respect to claims 5, 19, 33, and 45, Rajagopal et al. does not specifically disclose the analyzer proceeding with admission analysis if the timer indicates a predetermined elapsed time prior to receiving a response to the communication.

With respect to claims 5, 19, 33, and 45, Kaffine et al., in the field of communications, discloses an analyzer proceeding with admission analysis if a timer indicates a predetermined elapsed time prior to receiving a response to a communication **(See column 14 lines 38-48 of Kaffine et al. for reference to timing out a ping if no response is received within a configurable timeout period, meaning connection analysis proceeds after the timeout period prior to receiving a response to a ping)**. An analyzer proceeding with admission analysis if a timer indicates a predetermined elapsed time prior to receiving a response to a communication has the advantage of making sure the analyzer does not wait indefinitely for a response before proceeding with analysis when a response is not sent.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Kaffine et al., to combine an analyzer proceeding with admission analysis if a timer indicates a predetermined elapsed time prior to receiving a response to a communication, as suggested by Kaffine et al., with the system and method of Rajagopal et al., with the motivation being to make sure the analyzer does not wait indefinitely for a response before proceeding with analysis when a response is not sent.

5. Claims 7, 8, 21, 22, 35, 36, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajagopal et al. in view of Borella et al. (U.S. Pat. 6182125 B1).

With respect to claims 7, 8, 21, 22, 35, 36, 47, and 48, Rajagopal et al. does not disclose determining a mean and variance of elapsed times.

With respect to claims 7, 8, 21, 22, 35, 36, 47, and 48, Borella et al., in the field of communications, discloses determining a mean and variance of elapsed times **(See column 5 liens 46-61 of Borella et al. for reference to determining the mean and variance of network latency)**. Determining a mean and variance of elapsed times has the advantage of combining multiple latency measurements such that a more accurate determination of the latency over time is made.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Borella et al., to combine determining a mean and variance of elapsed times, as suggested by Borella et al., with the system and method of Rajagopal et al., with the motivation being to combine multiple latency measurements such that a more accurate determination of the latency over time is made.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason E. Mattis whose telephone number is (571) 272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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